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ABSTRACT

A study compared the professional certification regulations and practices of 16 states regarding the initial acceptance, required preparation, and ongoing professional development of vocational teachers. The survey data consisted of copies of vocational teacher certification requirements and telephone interviews with representatives from the state departments of education in the following states: Arkansas, California, Florida, Illinois, Maine, Massachusetts, Minnesota, New Hampshire, New Jersey, Ohio, Pennsylvania, Rhode Island, Texas, Vermont, Virginia, and Wisconsin. Certification requirements and professional development practices varied widely from state to state. Mandatory in-trade experience requirements ranged from one year or less to a maximum of five years, and 9 of the 16 states performed no mandatory technical testing, relying instead on work experience as the sole criterion for determining adequate technical competence. Only four states had mandatory written and practical examinations to validate applicants' technical skills. In 9 of the 16 states, one basic course (3-9 semester hours) was required for initial certification, and only 2 states had what could be termed extensive academic requirements. Four states required virtually no higher education even for permanent certification, although 7 required approximately 60 semester hours and 2 required a baccalaureate degree. These results were practically the same as those of a study conducted nearly a decade ago. (MN)

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Occupational Education and Industrial Policy:

Vocational Education Teacher Approval Survey

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Institute for Learning and Teaching
University of Massachusetts, Boston

OCCASIONAL PAPER 1.20

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Occupational Education and Industrial Policy:
Vocational Education Teacher Approval Survey

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Occupational Education and Industrial Policy:

Vocational Education Teacher Approval Survey

The purpose of this paper was to assess the professional certification regulations and practices of a variety of States regarding the initial acceptance; required preparation; and ongoing professional development of vocational teachers, with an eye toward identifying common practices and promising trends. The research data revealed that current practices have not changed significantly over the past decade. The wide disparity of certification requirements and professional development practices among the various States further supports the need for extensive review, clarification and standardization regarding both the initial preparation and ongoing professional development of vocational educators.

The certification - or approval - of vocational teachers has long been a point of much discussion, debate and thought within the vocational education community. The skills actually required of vocational teachers to perform competently have been categorized in a variety of ways. Most categorizations include knowledge of the subject matter that is taught; knowledge of human developmental and cognitive processes; specific methodologies and skills related to the areas of curriculum and instruction; and pedagogical techniques in the classroom.

These taxonomies have become more elaborate in recent years, due to the increased complexity of the technological environment. Vocational subjects typically require individuals who have worked in their specific technical occupations - to acquire the knowledge and skill needed to prepare others for employment . Consequently, vocational teachers arrive in the field of education as a second career; after developing and practicing their skills for a number of years in their initial occupation.

As a result, these individuals have a different demographic profile - and different requirements - than the "typical" teacher who prepared for a career in education while in college. The "typical" vocational teacher :

- did not go to college - but went directly into a "trade" or technical occupation after having received specific technical training for that occupation in a technical school or through the classical occupational "apprenticeship" model

- does not have a college degree or "traditional" academic teaching preparation

- is older than the "typical teacher" - having first completed an apprenticeship and several years of performance as a professional in the trade

- has different economic requirements - being older, often with family obligations, and a history of substantial income in the technical field

The process of encouraging these individuals to leave their vocation and enter the teaching profession, therefore, must take into consideration the particular circumstances of this group of individuals. On the other hand, the profession of teaching requires more than knowledge of one's subject matter. There are real requirements regarding both an understanding of how individuals develop and learn, as well as the particular skills related to the process of curriculum and instruction.The resulting dilemma is typically resolved today by verifying the technical - or subject matter competence of the vocational teacher prior to initial entry into the classroom; followed by a rapid "on-the-job" educational skills development program while the neophyte vocational teacher is working directly with students.

What, then, should the basic requirements for these vocational teachers be:

- for their initial entry into a classroom as a teacher
- for the completion of a "mandatory" program designed to prepare them as professional educators
- for their ongoing professional development

Different States have addressed these issues using a variety of approaches. Through the years, however, certain common practices tend to have evolved. Some of these practices have become standardized in most programs; others remain the subject of ongoing debate within the professional community.

The Center for Industrial Policy and Occupational Education commissioned a survey of a sample of State Departments to study the current practices and trends in certification regulations. A summary of these data and a discussion of their implications for vocational education follows.

Methodology

The data for this study were derived from the various Vocational Teacher Education Divisions within the Departments of Education in the sixteen States surveyed. The following States participated in this study:

State	Population
Arkansas	2,372,000
California	26,981,000
Florida	11,675,000
Illinois	11,552,000
Maine	1,173,000
Massachusetts	5,832,000
Minnesota	4,214,000
New Hampshire	1,027,000
New Jersey	7,619,000
Ohio	10,752,000
Pennsylvania	11,888,000
Rhode Island	975,000
Texas	16,685,000
Vermont	541,000
Virginia	5,787,000
Wisconsin	4,785,000
Total	**123,858,000**

The States sampled include 51% of the population of the United States, based on the census data, July, 1986.

Each of these States participated in a telephone survey. In addition, copies of their vocational teacher certification requirements were submitted for cross reference and review to validate the telephone data. The following pages present the findings of this research.

Presentation of the Data

Requirements for Initial Vocational Teacher Assignment

What must one do to enter the teaching profession as a vocational teacher?

There are two basic competency issues that are addressed in this question:

1. Does the respective individual have the necessary technical competence to teach his/her subject matter to others?
2. Does the individual have sufficient academic background to function in a secondary school environment and acquire the additional skills needed to prepare fully as a teacher?

The data in Figures 1, 2, and 3 report the current criteria and practices used by the respondent States regarding these questions. As can readily be seen in Figure 1, there does not appear to be any particular standard at the present time regarding technical experience. Mandatory experience "in the trade" ranges from less than one full year to a maximum of six years. The single largest category is 5 years - which represents 33 percent of the sample. Conversely, 3 of the 15 States (20 percent) require one year or less as the minimum experience before an individual may be considered for a career as a vocational teacher of that subject.

If experience is not consistent, it appears that some form of competency testing could provide an appropriate vehicle to insure that individuals possess the necessary technical competence for the successful transmission of their occupational expertise to vocational students. Once again, however, the data are disappointing. Of the 16 respondent States, Figure 2 shows that 9 of them perform no mandatory technical testing - and rely solely on work experience as the single criterion for determining adequate technical competence. The remaining 7 States in this sample do require at least a written examination to assess technical competence. Only four of these 16 States, however, (25 percent) have a mandatory written and practical examination to validate the technical skills of vocational applicants prior to approval for a classroom assignment.

Figure 1

Trade Experience Required for Initial Appointment as a Vocational Teacher (15 Respondent States)*

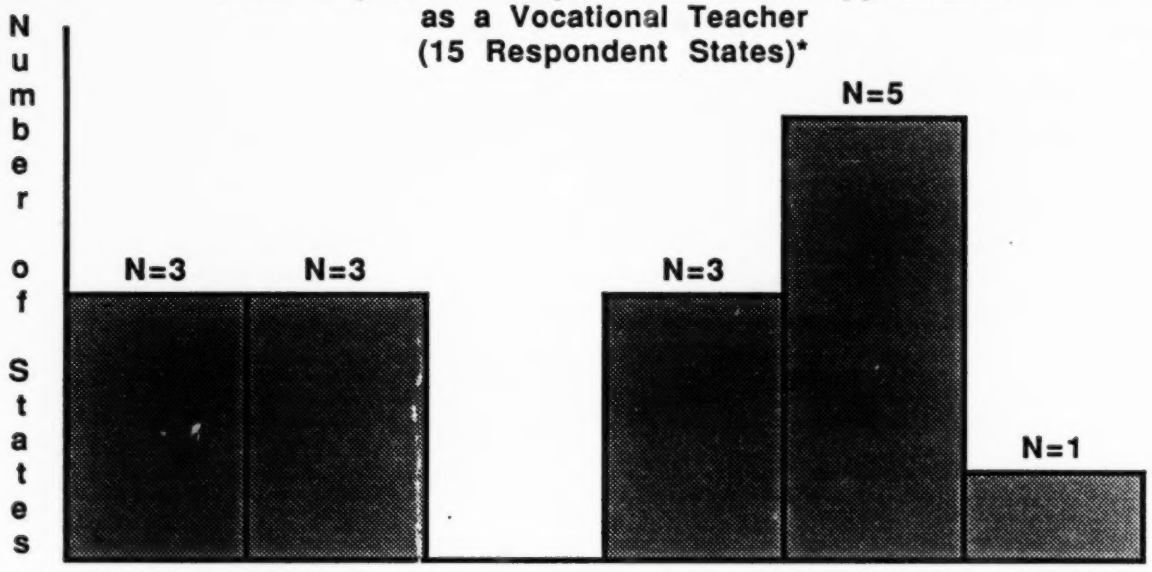
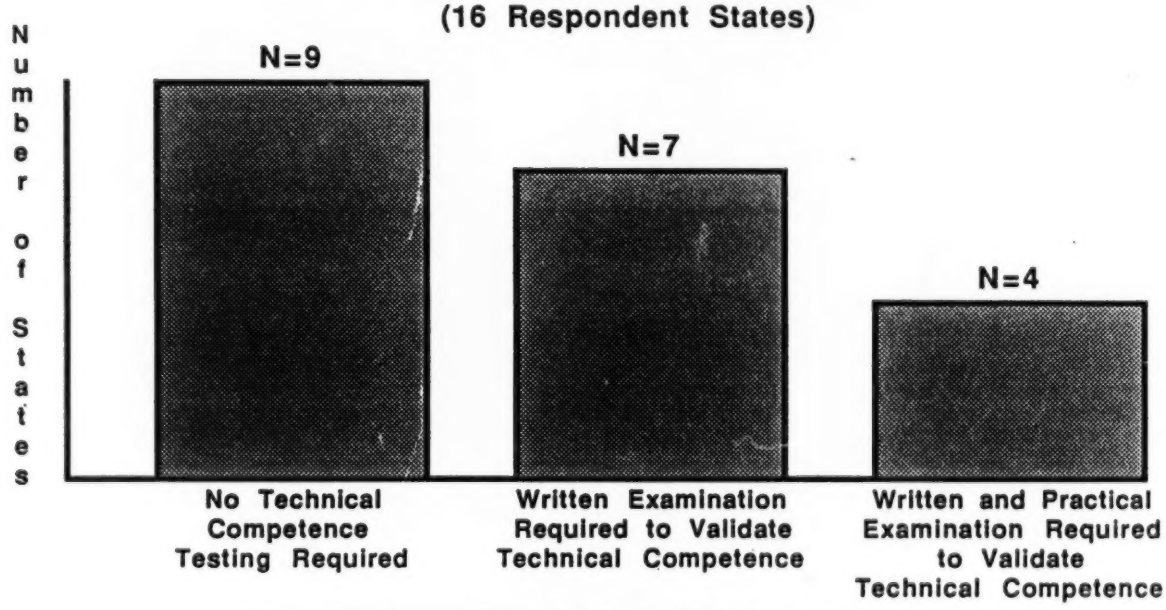


Figure 2

Testing Required To Validate Technical Competence for Vocational Teachers (16 Respondent States)


Number of States
N=9
N=7
N=4
No Technical Competence Testing Required
Written Examination Required to Validate Technical Competence
Written and Practical Examination Required to Validate Technical Competence
Examinations Required to Validate Technical Competence of Vocational Teachers

* Note: One State provided incomplete data regarding trade experience requirements. Figure 1, therefore, only reflects 15 States.

In light of the long history of concern with competency testing, and such validated instruments as the National Occupational Testing Institute (NOCTI) examinations in vocational education, the current validation of the technical competence of aspiring vocational teachers is a matter of national concern. This would be of particular importance for those States in which the job experience requirement is fairly minimal.

The question might indeed be asked: Is an individual with one or two years of technical experience - not validated through any competency testing - sufficiently experienced in those aspects of a particular technical occupation to train the next generation of individuals who must earn their living in that field?

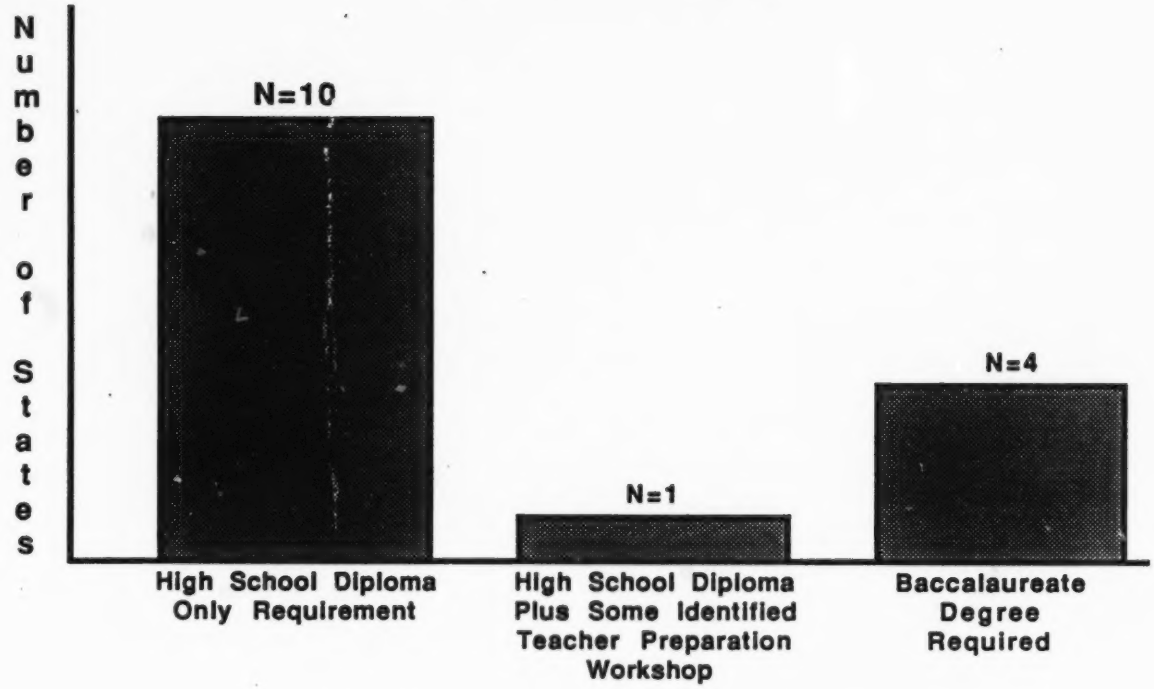
In reviewing the academic criteria for initial appointment as a vocational teacher, all 16 respondent States require at least a high school diploma. This is the total initial academic requirement for initial appointment in 10 of these States (66 percent of the sample). One State augments this with a specially designed teacher preparation workshop prior to initial assignment. Four of these 15 States, on the other hand, require the completion of a four year baccalaureate degree before an individual may obtain an initial teaching assignment as a vocational teacher. (See Figure 3).

This raises another interesting question. If ten of these States approve vocational teachers without higher education due to the difficulty in identifying and attracting them to the profession, how do the four States that require the full Baccalaureate Degree manage to attract and retain an adequate complement of vocational teachers? The data reveal that these States do indeed accomplish this objective. There may be some practices worth studying in these four States.

An additional consideration might be some point between the two polarities of High School Diploma and Baccalaureate Degree. The State that augments the Diploma with some specialized training prior to initial classroom assignment may be implementing some practices worthy of consideration by other States. Another option may also be the requirement that the vocational teacher complete the requirements for the baccaluareate degree after initial appointment.

Figure 3

Minimum Academic Criteria for Initial Appointment As A Vocational Teacher (15 Respondent States)



Academic Requirements Prior to First Teaching Assignment As A Vocational Teacher

Requirements for "Initial" Certification or Approval of Vocational Teachers

Once the determination has been made that an individual meets the eligibility requirements for an appointment as a vocational teacher (technical competence plus basic academic credentials), individual schools may hire this person.

Employment then carries with it the immediate requirement for some training to "initially certify or approve" this person.

A detailed State-by-State analysis of specific courses, numbers of credits, etc. may be used to identify the average number of credits and other requirements for this initial certification. More importantly, however, is an understanding of the spirit - or intent - of this initial approval process.

The data from the 16 States in this study are summarized and presented in Figure 4. Figure 4 shows that 9 of the 16 States (56 percent) require one basic course for this initial approval. This course may be in the "History and Philosophy of Vocational Education," - or a basic experience in curriculum design, instructional methodology, or student teaching. In any case, it is typically offered in the evening, during the first semester in which the newly appointed teacher is directly involved in a classroom teaching assignment.

Figure 4 also indicates that certain States use some form of on-the-job support and inspection instead of a specific course; still other States require a block of several courses over a period of time. Two of the 16 States surveyed require extensive academic requirements: one demands 66 semester hours; while the other requires a full Baccalaureate degree in the field of Education prior to vocational teacher classroom assignment.

Mandatory Academic Requirements for the Vocational Teacher to Receive "Initial" Certification or Approval

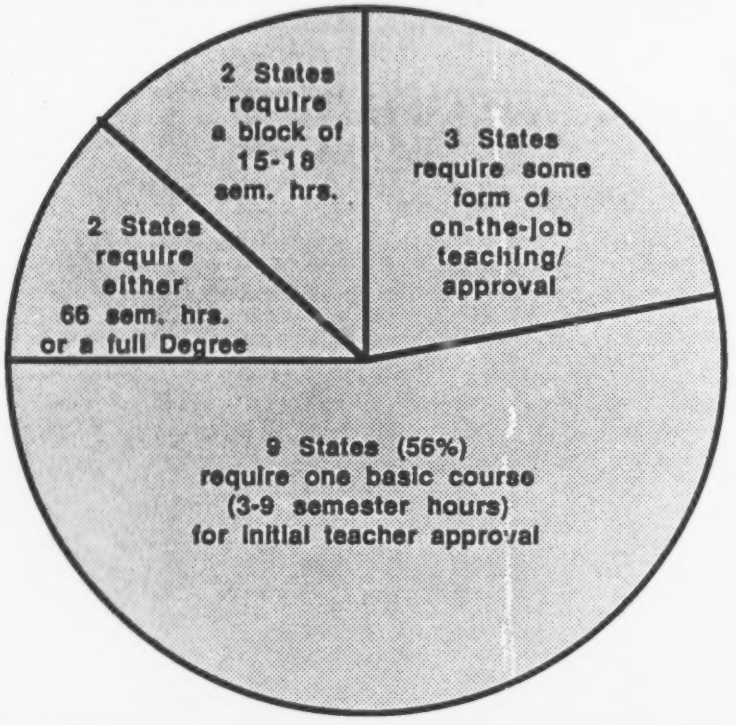

2 States require a block of 15-18 sem. hrs.
3 States require some form of on-the-job teaching/ approval
2 States require either 66 sem. hrs. or a full Degree
9 States (56%) require one basic course (3-9 semester hours) for initial teacher approval

Figure 4

Mandatory Academic Requirements for the Vocational Teacher to Receive "Permanent" Certification or Approval

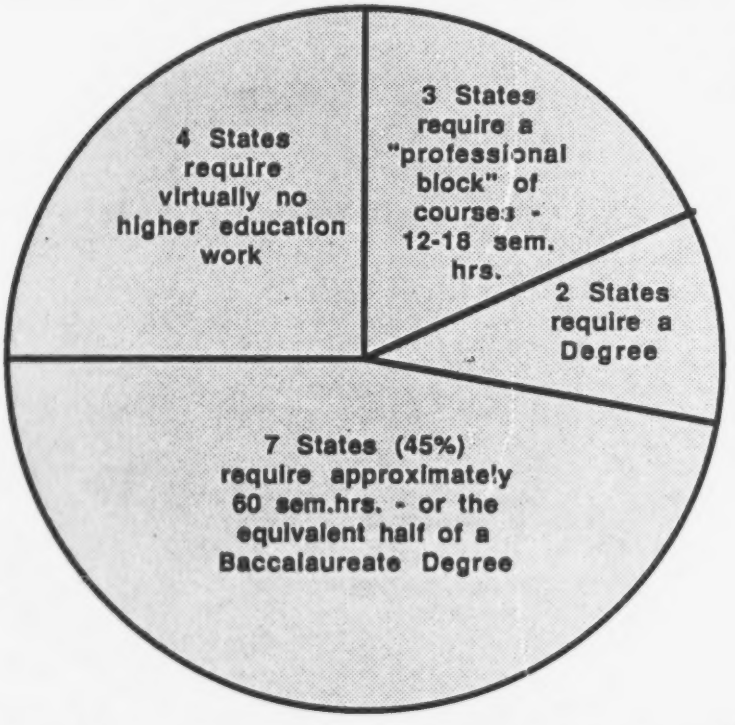

4 States require virtually no higher education work
3 States require a "professional block" of courses - 12-18 sem. hrs.
2 States require a Degree
7 States (45%) require approximately 60 sem.hrs. - or the equivalent half of a Baccalaureate Degree

Figure 5

Requirements for "Permanent" Certification or Approval of Vocational Teachers

After completing the defined "initial" requirements over one or several semesters, the next consideration is whether the vocational teacher is required to pursue further academic work toward a degree. In other words, is the vocational teacher ultimately expected to achieve academic "parity" with other secondary school teachers.

The data in Figure 5 clearly show that almost half of the respondent States require the vocational teacher to continue with academic studies and ultimately earn the equivalent of approximately half of a Baccalaureate degree. In most instances, this represents the professional half of the Degree - with the teacher's life experience and previous occupational training becoming the academic major of the Degree.

At the other extreme, four of the States (25 percent of this sample) require no further work at all beyond the requirements for initial approval.

Three States require a modest block of courses - approximately 12-18 semester hours; while two States require the full effort of ultimately earning the Baccalaureate Degree.

In summary, the "typical" vocational teacher must complete some minimal experience for initial teacher approval - one or several courses. These courses are then credited toward additional academic requirements for full certification.

The wide variance in requirements across States, however, indicates the lack of any overall or common standards for the field. Several States apply very rigorous criteria, while other States maintain very minimal standards in the selection, validation and certification of their vocational teachers.

The length of time allowed for earning credits also varies. Seven of the States reported a specific number of years in which these credits must be earned - from one to five years, based on the total number of credits required. Six other States, however, place no time restrictions on completing these requirements as long as the teacher maintains "continuous enrollment", showing good faith and progress in an approved vocational teacher training program.

The pattern of initial and "permanent" certification, therefore, is as follows:

- One or several courses for initial approval.
- This course is completed through an evening program during the first year of an assignment as a vocational teacher
- Ongoing professional development requirements completed on a part-time evening basis.
- Required continuation of these courses up to the "rough equivalent" of the professional half of a Baccalaureate Degree.
- Very wide variation in these requirements and in their implementation is evident among the different States.

Ongoing Professional Development Requirements for Vocational Teachers

Of the sixteen respondent States, eight (exactly one-half) maintain a requirement for some ongoing professional development for their vocational teachers. The number of semester hours of credit varies from two to ten; and the length for accomplishing these credits similarly varies from once a year to every seven years. All of these, however, indicate a common intention or effort to have the vocational teacher complete one professional course, seminar, workshop or similar experience on an annual basis.

The other half of the respondent States indicate that they require no additional professional development experience beyond full certification.

Higher Education Programs for Vocational Education

In reviewing the sixteen States represented in this sample, the following facts may be noted:

- Four of the 16 States (25 percent) reported no Institutions of Higher Education offering degrees in vocational education at any level - bachelors, masters, or doctorate.
- Twelve States in this sample indicated anywhere from one to four Institutions per State that support undergraduate studies in vocational education.
- Every State that indicated at least one undergraduate program also indicated at least one program at the Masters level providing concentration in one or several aspects of vocational education.
- A majority of the State Department representatives indicated no direct knowledge of doctoral study in vocational education in their State.

It is interesting to note that while the majority of State Department representatives indicated no knowledge of doctoral programs, the authors of this study are personally aware of doctoral programs in vocational education in at least eight - or half - of the States represented in this study. This may well be a result of the basic certification focus of the State Department, rather than a review of total professional development opportunities. It might also reflect a lack of communication by the universities with their own State Departments of Education.

Other Recommendations by the State Department Representatives

When solicited for additional open-ended input, four of the 16 State representatives indicated that they would like to see the Baccalaureate Degree become the standard requirement for full certification for all their vocational teachers. Four other representatives indicated that their States are currently reviewing both certification requirements and academic standards for vocational teachers.

Conclusions

1. The results of this Study vary very little from a similar national study conducted approximately a decade ago (Resnick, 1977). Little has changed in vocational teacher certification practices during the past ten years.
2. There is a wide disparity regarding requirements and practices in accepting and developing vocational teachers among the respondent States.
3. These varied practices are not simply differences in the scope or extent of technical and academic requirements. They represent different approaches toward the certification and professional development of vocational teachers.
4. Years of trade experience as a requirement for vocational teachers varies greatly among the respondent States.
5. Validation of trade competence from the perspective of both experience and examinations varies greatly among the respondent States.
6. The minimal trade experience requirement in some States - with the lack of objective examinations to validate technical competence -may lead to the approval of some vocational teachers who do not have the required or appropriate technical skills needed to prepare others within their occupations.
7. Most States allow individuals to enter the field of vocational education with minimal academic credentials - often only a high school diploma.
8. Requirements for "initial" certification approvals vary greatly across States. The norm for most States, however, is a single one or two course sequence.
9. Requirements for permanent certification, in approximately 50 percent of the States, is roughly equal to the professional half of a Baccalaureate Degree.
10. Once permanently certified, mandatory requirements for ongoing professional development are minimal - typically one course or seminar a year.
11. The identification and professional development of vocational teachers leaves a high degree of concern. The variability across States also indicates a need for higher national standards and increased monitoring in both the selection and path of continued professional development of vocational teachers.

Resnick, Harold S., and David C. Gardner. An Analysis of National Certification Requirements and Professional Development Standards for Vocational Education Personnel. Boston University, 1977.

Reflections

The identification, selection, and professional development of vocational teachers may well be one of the single most significant factors in maintaining the quality of excellence desired for vocational education programs at the secondary and post secondary level.

The preliminary data of this study would indicate, therefore, that if professional upgrading is a goal, further examination should be made regarding current practices across the United States.

More specifically, the authors would suggest the following:

1. The use of competency examinations to validate the technical skill of vocational teachers should be re-examined. National competency examinations have been developed and validated. Why have they not become the standard practice in selecting vocational teachers?
2. Although most States accept individuals as vocational teachers with only a high school diploma, several States have established far more rigorous academic criteria. How are they able to implement this requirement? Can some of these concepts and programs be generalized to other States to improve the quality of their vocational teachers?
3. Requirements for "full certification or approval" of vocational teachers are still subject to widespread variability across States. If vocational education is to attain full parity in the educational community, its teachers must have the same level of professional credentials as other professional educators.
4. The collaborative relationship among the State Departments of Education, local school systems, individual vocational educators, and the Institutions of Higher Education must be strengthened to develop and implement specific programs to address these issues on an ongoing basis - leading to continually increased quality of vocational education programs and students.